

WE CLAIM:

Claim 1. A position encoded sensing device comprising:
a display panel; and
a reflective plate having encoded information thereon, wherein the reflective plate is disposed within the display panel.

Claim 2. The device of claim 1, further comprising:
a light shielding layer disposed within the display panel, wherein the reflective plate is disposed on a surface of the light shielding layer.

Claim 3. The device of claim 1, further comprising:
a polarizing plate, wherein the reflective plate is disposed on a surface of the polarizing plate.

Claim 4. The device of claim 1, further comprising:
a transceiver for emitting and receiving light, wherein the transceiver transmits light onto the reflective plate, and wherein the transceiver receives reflected light containing the encoded information from the reflective plate.

Claim 5. The device of claim 4, wherein the transceiver comprises a transmitter for emitting light, a receiver for receiving or detecting reflected light, and a filter for filtering light.

Claim 6. The device of claim 1, wherein the encoded information comprises a sensing programmable code.

Claim 7. A method of sensing a position on a display, said method comprising the steps of:

- displaying information on a display panel;
- positioning a transceiver proximately to the display panel;
- transmitting light from a transceiver on to the display panel;
- receiving reflected light reflected from the display panel, the reflected light having encoded information therewith; and
- processing the encoded information received with the reflected light.

Claim 8. The method of claim 7, wherein the step of transmitting light comprises the step of:

- transmitting light from the transceiver on to at least one reflective plate disposed within the display panel, the at least one reflective plate having encoded information programmed thereon.

Claim 9. The method of claim 7, wherein the step of receiving comprises the step of:

- receiving reflected light having at least position sensing code information therewith.

Claim 10. The method of claim 7, wherein the step of processing comprises the steps of:

receiving the encoded information received with the reflected light;

determining a position of the transceiver with respect to the panel display based on the received encoded information.

Claim 11. A system for sensing a position on a display comprising:

a display means for displaying information on a display panel;

a transmitting means for transmitting light from a transceiver on to the display panel;

a first receiving means for receiving reflected light reflected from the display panel, the reflected light having encoded information therewith; and

a processing means for processing the encoded information received with the reflected light.

Claim 12. The system of claim 11, wherein the transmitting means transmits light on to at least one reflective plate disposed within the display panel, the at least one reflective plate having encoded information programmed thereon.

Claim 13. The system of claim 11, wherein the first receiving means receives reflected light having at least position sensing code information therewith.

Claim 14. The system of claim 11, wherein the processing means comprises:

a second receiving means for receiving the encoded information received with the reflected light;

a determining means for determining a position of the transceiver with respect to the panel display based on the received encoded information.